uniden®

Sundowner
UH-053

16-Channel Personal
UHF 2-Way Radio

Operating Manual

Please read carefully before operating this radio.

Safety Information

- **DO NOT** operate the transmitter of any radio equipment with the antenna touching, or close to the eyes, face, or exposed body parts.
- **DO NOT** operate the transmitter of any radio equipment unless all the Radio Frequency (RF) connectors are secure and any open connectors are properly terminated.
- **DO NOT** operate the transmitter of any radio equipment near electrical blasting caps or in an explosive atmosphere.
- **DO NOT** let children operate any transmitter-equipped radio equipment.
- Have your radio equipment serviced by a qualified technician.

Nickel-Cadmium Battery Warning

- This equipment contains a nickel-cadmium battery.
- The nickel-cadmium battery contained in this equipment may explode if disposed of in a fire.
- **Do not** short circuit the battery.
- **Do not** charge the nickel-cadmium battery used in this equipment in any other charger other than the one designed to charge this battery. Using another charger may damage the battery, or cause the battery to explode.

Uniden® is a registered trademark of Uniden Corporation.

Features, Specifications, and availability of Optional Accessories are all subject to change without notice.

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Introduction

Congratulations on your purchase of the Sundowner **UH-053.** This 16-channel personal UHF-CB 2-way radio represents a great value in professional portable communications. You'll find that it provides reliable, consistent performance for short-distance 2-way personal communications.

The Sundowner **UH-053** is designed to operate in simplex mode on CH1 to CH16 or duplex mode on CH1 to CH8 where repeater service is available.

Warning!

The Citizens Band Radio Communication Service (CBRS) is under the jurisdiction of the Australian Spectrum Management Agency (SMA). Any adjustment or alteration which will change the performance of the transceiver's original SMA type acceptance is STRICTLY PROHIBITED. Replacement or substitution of power or frequency determining components e.g. Crystals, Transistors, ICs, Diodes, etc. with other than those recommended by UNIDEN will cause violation to the SMA type acceptance technical requirement.

Feature Highlights

- ***One — Watt Power*** — Reliable short range 2 — way communication.
- ***Simplex/Duplex — Communication*** — Allows the **UH-053** to operate via a repeater station.
- ***16 — Channel Capability*** — Uses any of the first 16 Channels of the UHF CB Band.
- ***LED Message Indicators*** — instantly see when the radio is transmitting, the channel is busy, or the battery is low.
- ***Rechargeable Nickel — Cadmium Battery*** — Eliminates the costly expense of frequently purchasing replacement batteries.
- ***AC Adaptor/Charger*** — Use to charge/ recharge the Nickel — Cadmium battery.
- ***Speaker/Microphone Jacks*** — Plug in the optional ***Remote Speaker/Microphone for easier communications.***

Unpacking

Carefully check the contents against this list:

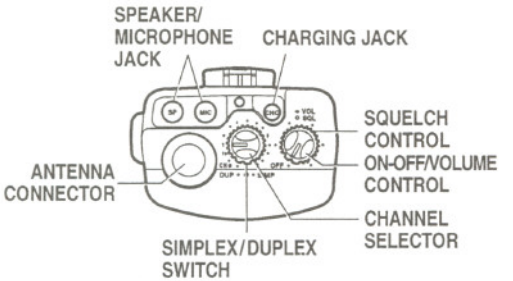
- **UH-053** 16-Channel Personal UHF 2-Way Radio
- Nickel-Cadmium Battery (installed in radio)
- Flexible Rubber Antenna
- Belt Clip
- AC Adaptor/Charger
- This Operating Guide (read carefully and save)

If any items are missing or damaged, contact your place of purchase immediately.

Optional Accessories

- **Spare Battery** — Replacement Rechargeable battery.
- **Remote Speaker/Microphone** — Use the **UH-053** while clipped to your belt or on a desk.

Controls and Indicators



On-Off / Volume Control — Use to turn the radio on or off, and to adjust the volume level.

Squelch Control — Use to eliminate background noise (the "rushing" sound) heard between transmissions.

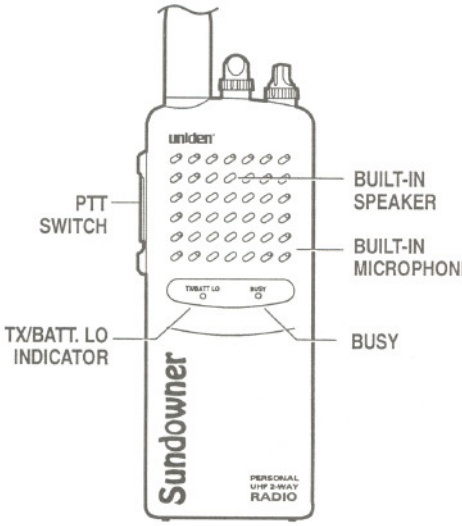
Channel Selector — Rotate this knob to select the desired channel.

Simplex/Duplex Switch — Selects Simplex or Duplex. Communication on CH1 to CH8.

Antenna Connector — Screw the flexible antenna into this TNC-type connector.

Speaker/Microphone Jacks — Plug the optional Remote Speaker/Microphone.

Charging Jack — Plug the supplied AC Adaptor/ Charger into this jack to charge/recharge the battery while in the **UH-053**.



PTT (Press-To-Talk) Switch — Press to transmit.

TX/BATT LO Indicator — This red LED ***lights*** when you press the PTT switch to transmit. The LED ***blinks*** when the battery is low and needs recharging.

BUSY Indicator — This amber LED lights when the signal being received on the current channel is strong enough to break squelch.

Built-in Microphone — Speak into here when transmitting.

Built-in Speaker — Provides audio output when receiving.

Getting Started

Charging the Battery

Before using the **UH-053** for the first time, or whenever the red BATT LO indicator lights showing the battery is low, you should fully charge the unit.

To charge the nickel-cadmium battery:

Using the AC Adaptor/Charger

1. Plug the AC adaptor/Charger into the Charging Jack located on top of the unit.

   WARNING! *Use only the supplied AC Adaptor/Charger. Any other AC Adaptor or external power plug having over-voltage or reversed polarity can cause overheating or damage to the circuitry.*

2. Plug the charger into a standard AC outlet.

   To fully charge the battery, leave the Adaptor/ Charger connected for between 9 and 11 hours.

Note:	*Switch OFF the unit while the battery is charging.*

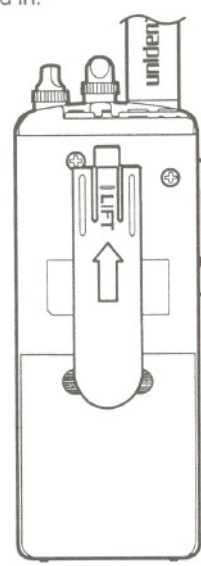
3. When charging is complete, disconnect the Adaptor/Charger from the AC outlet, and from the radio.

Mounting the Flexible Antenna

Place the end of the antenna onto the TNC connector on top of the radio and turn clockwise until tight.

Installing the Belt Clip

Place the Belt Clip slightly above the mounting area on the back of the radio, and press downward and in.



Operation

Note: Before operating the UH-053 for the first time, make sure you have fully charged the battery.

1. Turn the **UH-053** on by rotating the On-Off/Volume Control clockwise until you hear a click.
2. Adjust the Volume Control to a comfortable level.
3. Turn the Squelch Control fully counter-clockwise. You will hear background noise, and the BUSY Indicator will light. Turn the Squelch Control just until the background noise disappears and the BUSY Indicator goes out. At this setting, the received signal must be strong enough (>0.25μV) to break squelch and be heard.
4. If the channel is clear, the BUSY Indicator will be out. (If the BUSY Indicator is lit, the channel is busy. Wait until the light goes out before you begin transmitting.) Press the PTT Switch to transmit. The TX Indicator lights to indicate you are transmitting. Hold the built-in microphone (or optional Speaker/Microphone) approximately two inches from your mouth and speak clearly in a normal voice.
5. When you are through speaking, release the PTT switch and listen for a reply. (The TX Indicator goes out.)
6. When you are finished using the radio, be sure to turn it off to conserve battery power.

Simplex/Duplex Communication

Duplex Operation allows the Sundowner **UH-053** to operate via a repeater station on Channels 1 through 8. The set receives on these channels but transmits 750 kHz higher than the receiver frequency.

When the Simplex/Duplex switch is set to Simplex position, the set receives and transmits on the same channel. (Simplex Communication)

To use Duplex operation on a Channel where Repeater Service is available, set the Simplex/Duplex selector switch to "Duplex".

To put the Duplex channel back to normal Simplex operation, set the Simplex/Duplex Selector switch to "Simplex".

Low Battery Level Detection

Uniden Sundowner **UH-053** has a built-in battery level detector circuit. It evaluates your Battery Pack everytime you transmit to determine whether the power inside the Battery is still sufficient enough to support normal Receive and Transmit communications.

When the **PTT** switch is pressed and the **TX LED** blinks. It means the battery level is already low and needs recharging. Under this condition, the unit no longer transmits RF Power. Have your battery charged fully or replaced by a fully charged battery to resume normal operation.

Care and Maintenance

The **UH-053** is designed to give you trouble-free service. There are no user-serviceable parts inside, and except for occasionally replacing the rechargeable battery, no maintenance is required.

Warning! Uniden does not represent this unit to be waterproof. Do not expose the unit to moisture. Rain, dew, or other liquids may damage the internal components.

Replacing the Rechargeable Battery

When it is time to install a new battery, use only the one made for this radio. Any other type of battery may damage your unit.

To replace the battery:

1. Remove the Belt Clip by lifting the tab and carefully sliding upward and out.
2. Remove the battery compartment cover on the back of the radio by pressing in and sliding the cover down and off.
3. Remove the rechargeable nickel-cadmium battery and replace with a new one. Be sure the terminals on the battery match up with the contacts in the radio.
4. Replace the battery compartment cover by sliding it back into place until it clicks.
5. Replace the Belt Clip.

Note: Be sure to recharge the battery before using the radio.

Troubleshooting

Problem	Suggestion
Unit does not power on.	Battery voltage is low. Recharge, or replace with a new one.
No reception or poor reception.	Adjust the squelch and volume.
	Antenna is not properly connected.
	Battery voltage is low. Recharge, or replace with a new one.
No transmission.	You may be out of range of the receiving party. Remember, this radio is used only for short distance communication.
	If you are using the optional Speaker/Microphone, make sure it is properly connected.
Transmitting on any channel between CH1 to CH8 but the receiving party cannot hear you.	Maybe out of range of the receiving party or if not using a repeater station check the Simplex/Duplex Switch Setting (should be set to simplex)

Service

If your radio does not work properly, or if service is necessary, contact your local Uniden dealer or return the product in its original carton. If you are shipping the item, enclose a description of the problem along with a copy of the original purchase receipt. Send the product to the address listed in the Warranty (at the end of this manual).

UHF CB CHANNEL INFORMATION

Operating Mode

CH	SIMPLEX		DUPLEX	
	RX (MHz)	TX (MHz)	RX (MHz)	TX (MHz)
1	476.425	476.425	476.425	477.175
2	476.450	476.450	476.450	477.200
3	476.475	476.475	476.475	477.225
4	476.500	476.500	476.500	477.250
5	476.525	476.525	476.525	477.275
6	476.550	476.550	476.550	477.300
7	476.575	476.575	476.575	477.325
8	476.600	476.600	476.600	477.350
9	476.625	476.625	476.625	476.625
10	476.650	476.650	476.650	476.650
11	476.675	476.675	476.675	476.675
12	476.700	476.700	476.700	476.700
13	476.725	476.725	476.725	476.725
14	476.750	476.750	476.750	476.750
15	476.775	476.775	476.775	476.775
16	476.800	476.800	476.800	476.800

Note: From Channel 9 to 16, irregardless of SIMPLEX/DUPLEX Switch setting, the transmit and receive frequency is the same.

Specifications

General

Channel:	16 (PLL)	
Frequency Range:	Simplex	476.425 MHz to 476.800 MHz
	Duplex (TX)	477.175 MHz to 477.350 MHz
Antenna Connector:	TNC type	
Size:	150 mm(H) x 41 mm(D) x 63 mm(W)	
Weight:	410 g	
Speaker:	16Ω, 0.4W max	
Microphone:	Built-in Electret type	
Approvals:	SMAS250	

Transmitter

Frequency Tolerance at 25°C:	±500 Hz (nominal)
Frequency Stability 0°C to +55°C:	±5 PPM
Carrier Power	1 W
Spurious Emission	–30 dBm (or Better)
Modulation Frequency Response (1 kHz REF)	
500 Hz:	–6 dB
2000 Hz:	+6 dB
Microphone Sensitivity for +/–3 kHz Dev.	5 mV
Maximum Deviation **(100 mV input)**	±4.7 kHz
Current Drain	550 mA

Receiver

12 dB SINAD Sensitivity:	0.25µV
Squelch Sensitivity Threshold:	0.25µV
Tight:	1µV
Audio Frequency Response (1 kHz REF)	
500 Hz:	+3 dB
2000 Hz:	–6 dB
Adjacent Channel Selectivity (±25 kHz)	55 dB
Image Rejection (1st & 2nd):	40 dB
Hum & Noise Ratio	38 dB
THD at Standard Output Power:	3 %
Audio Output Power at 10% THD:	0.25 W
Maximum Audio Output Power:	0.5 W
Oscillator Dropout Voltage:	6 V (max.)
Standby Current Drain:	40 mA
Current Drain at Maximum Audio Output:	250 mA

Specifications shown are typical and subject to change without notice.

WARRANTY

Uniden Sundowner UH-053
16-Channel Personal UHF 2-Way Radio
Australian 1 Year Warranty

Note: Please keep your sales docket as it provides evidence of warranty.

WARRANTOR: Uniden Australia Pty. Limited ACN 001 865 498

ELEMENTS OF WARRANTY: Uniden warrants to the original retail owner for the duration of this warranty, its Sundowner UH-053 16-Channel Personal UHF 2-Way Radio (hereinafter referred to as the Product), to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original retail owner only, shall terminate and be of no further effect ONE (1) Year after the date of original retail sale. This warranty will be deemed Invalid if the product is; (A) Damaged or not maintained as reasonable and necessary, (B) Modified, altered or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) Improperly installed, (D) Repaired by someone other than an authorized Uniden Repair Agent for a defect or malfunction covered by this warranty, (E) Used in conjunction with any equipment or parts or as part of a system not manufactured by Uniden. (F) Installed, programmed or serviced by anyone other than an authorized Uniden Repair Agent. (G) Where the Serial Number label of the product has been removed or damaged beyond recognition.

PARTS COVERED: This warranty covers for 1 year, the Sundowner UH-053 16-Channel Personal UHF 2-Way Radio Unit only. All accessories, NICAD Battery, AC Adaptor/Battery Charger, Antenna, Belt Clip, are covered for 90 days.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, the warrantor at its discretion, will repair the defect or replace the product and return it to you without charge for parts and service.
THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.

WARRANTY CARD: If a warranty card has been included with this product then please fill it in and return it to us within 14 days of purchase. Your name and serial number of the product will then be registered in our database and this will help us process your claim with greater speed and efficiency should you require warranty service.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: In the event that the Product does not conform to this warranty, the Product should be shipped or delivered, freight pre-paid, with evidence of original purchase, (eg/ a copy of the sales docket), to the warrantor at:

UNIDEN AUSTRALIA PTY. LIMITED
SERVICE DIVISION
345 Princes Highway, Rockdale, NSW 2216
Ph (02) 599 3100 FAX (02) 599 3278

Customers in other States should ship or deliver the Product freight pre-paid to their nearest Uniden Authorized Repair Centre. (Contact Uniden for the nearest Warranty Agent to you)

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